

App. No. 09/975,396  
Office Action Dated July 12, 2004

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claims 11 and 13 are hereby amended to correct minor errors. No new matter has been added.

Claim 7 was rejected under 35 U.S.C. 112, as being indefinite. Claim 7 has been cancelled. Applicants are not conceding the correctness of the rejection.

Claims 1-8, 10, 15, and 16 were rejected as anticipated by Yoshida (US 6,498,330). Applicants traverse the rejection. In Yoshida, the electrical signal is obtained by adding an electrical signal S1, output from a first photo detector 7a, and electric signals S2, S3, S4, and S5, respectively output from a second photo detector 7a, 7b, 7c, or 7d ( $RF = S1 + S2 + S3 + S4 + S5$ ). See Yoshida column 6, lines 29-44. In contrast, in claim 1, a first photo detector receives a first light and outputs a signal that is sufficient itself for reproducing information recorded on an information storage medium, and a second photo detector receives a smaller amount of second light and outputs a signal for detecting aberration of light converged on the information storage medium. Thus currently amended claim 1 should be reconsidered allowable. Similarly claims 15 and 16 should be reconsidered allowable as the matter of claim 1 is included in claim 15 directed to an information recording and reproduction apparatus, and is included in claim 16 directed to a method for detecting aberration. Please also reconsider claims 2-8 as they are dependent on claim 1.

Claim 10 recites that "the amount of change in the amount of focus deviation of light in the first region is equal to that in the amount of focus deviation of light in the second region". This would correspond to a Yoshida value of " $SA=S3-S4$ " being zero. Yoshida teaches that this value is not kept zero when a defocus condition exists. Rather, the spherical aberration signal SA would be represented by  $SA=(S3-S4)-(S1-S2)K$ , where S1-S2 corresponds to a focus error signal. This allows the undesirable effects of defocus to be eliminated electrically. See column 8, lines 41-45. Therefore, Yoshida actually teaches away from claim 10 and favorable reconsideration of claim 10 is requested.

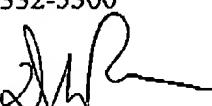
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Claims 1, 15, and 16 were rejected as anticipated by Wals (US 6,399,932). Applicants traverse this rejection. Contrary to the assertion in the rejection, detectors 36 and 37 are provided for generating a tracking error and a defocus error signal, not for generating a signal to detect aberration of light converged on the information storage medium, as in claimed invention. (See Wals, column 5, line 14-19.) Wals generates a spherical aberration signal (comatic aberration) by use of photo detectors 28 and 30 (Fig. 3A), which detect sub-beams 26 and 27. This is in contrast to the invention of claim 1, where a light dividing means divides light into a first light to be received by the first photo detector for generating a signal to reproduce information and a second light to be received by the second photo detector for generating a spherical aberration signal. Thus claim 1 is allowable. Similarly claims 15 and 16 should be reconsidered allowable as the matter of claim 1 is included in claim 15 directed to an information recording and reproduction apparatus, and is included in claim 16 directed to a method for detecting aberration. Favorable reconsideration of claims 1, 15, and 16 is requested.

In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612)371-5237.

Respectfully submitted,

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DPM:mfe

